

IN THE CLAIMS

Please amend the claims as follows:

1. (Cancelled).

2. (Currently Amended)      ~~Method A method of monitoring the operational temperature of operating a disc drive having a semi-conductor laser device (3) in a disc drive (1), the method comprising the steps of:~~

5      ~~.....applying electrical power to said semi-conductor laser device (3);~~

.....~~measuring a light intensity (Lout) of a laser beam (4) generated by said semi-conductor laser device (20);~~

10      ~~.....controlling said electrical power such that said light intensity (Lout) remains constant;~~

.....~~measuring at least one electrical parameter (VCL; I) indicative of the work point (W) of said semi-conductor laser (20) device; and~~

15      ~~.....and determining said an operational temperature of said semi-conductor laser device on the basis of a predetermined relationship between said work point (W) on the one hand and said operational temperature on the other hand.~~

3. (Currently Amended)      ~~Method The method of operating a disc drive which comprises a semi-conductor laser device (3) as claimed~~

in claim 2, wherein the method comprising further comprises the steps-step of:

5 ~~applying electrical power to said semi-conductor laser device (3);~~  
~~measuring a light intensity (Lout) of a laser beam (4) generated by~~  
~~said semi-conductor laser device (20);~~  
~~controlling said electrical power such that said light intensity~~  
~~(Lout) remains constant;~~  
10 ~~measuring at least one electrical parameter (VCL, I) indicative of~~  
~~the work point (W) of said semi-conductor laser (20);~~  
~~.....and taking temperature reducing steps if the measured~~  
~~value of said at least one electrical parameter (VCL, I) indicates~~  
~~that the operational temperature of the laser device has reached a~~  
15 ~~predetermined critical temperature (TCRIT).~~

4. (Currently Amended) ~~Method according to~~The method as  
claimed in claim 3,

~~.....wherein said step of measuring at least one electrical~~  
~~parameter comprises measuring a plurality of electrical parameters~~  
5 ~~(VCL, I) indicative of the work point (W) of said semi-conductor~~  
~~laser (20) are measured; device,~~  
~~.....and wherein said temperature reducing steps are taken if~~  
~~at least one of said plurality of electrical parameters indicates~~  
~~that the operational temperature of the laser device has reached a~~  
10 ~~predetermined critical temperature (TCRIT).~~

5. (Currently Amended) ~~Method according to~~The method as  
claimed in claim 3-or-4, wherein ~~an the at least one electrical~~  
parameter ~~{VCL}~~ is compared with a predetermined parameter level  
~~{VCRIT, VNORM}~~.

6. (Currently Amended) ~~Method according to~~The method as  
claimed in claim 5,

.....wherein said electrical parameter ~~{VCL}~~ is measured at a  
certain known temperature of the laser device, this measured value  
5 being taken as zero value ~~{V0}~~ $T_{L}$ .

.....wherein said electrical parameter ~~{VCL}~~ is measured during  
operation of the disc drive to yield an actual value ~~{VCL}~~ $T_{L}$ .

.....and wherein the difference ~~{EV}~~ between the actual value  
of said electrical parameter ~~{VCL}~~ and said zero value ~~{V0}~~ is

10 compared with a predetermined threshold.

7. (Currently Amended) ~~Method according to any of claims 3-~~  
~~6~~The method as claimed in any one of claims 3-6, wherein said

temperature reducing steps comprise, ~~for instance,~~ the step of  
operating a cooling device or a ventilator, or the step of reducing  
5 a clock frequency, or the step of reducing a rotational speed of a  
motor ~~{2}~~ of said disc drive ~~{1}~~.

8. (Currently Amended) ~~Method according to~~The method as  
claimed in claim 7, wherein ~~a the~~ rotational speed of ~~a the~~ motor  
~~{2}~~ of said disc drive ~~{1}~~ is reduced when said electrical

parameter ~~{VCL}~~ reaches a first predetermined parameter level  
5 ~~{VCRIT}~~ indicative of said semi-conductor laser device ~~(20)~~ having  
reached a predetermined critical temperature ~~{TCRIT}~~, and wherein  
the rotational speed of said motor ~~(2)~~ of said disc drive ~~(1)~~ is  
increased when said electrical parameter ~~{VCL}~~ reaches a second  
predetermined parameter level ~~{VNORM}~~ indicative of said semi-  
10 conductor laser device ~~(20)~~ having reached a normal temperature.

9. (Currently Amended) ~~Disc~~ A disc drive (1), comprising:  
\_\_\_\_\_a disc drive motor ~~(2)~~ for rotating an optical disc ~~(10)~~;  
\_\_\_\_\_a laser device ~~(3)~~ for generating a laser beam ~~(4)~~ for  
scanning the optical disc; and  
5 \_\_\_\_\_a control unit ~~(5)~~ for controlling the disc drive motor ~~(2)~~  
and the laser device ~~(3)~~ ;  
wherein the control unit ~~(5)~~ is designed to monitor ~~monitors~~ at  
least one electrical parameter ~~{VCL, I}~~ indicative of the a work  
point ~~(W)~~ of a semi-conductor laser ~~(20)~~ of said laser device ~~(3)~~,  
10 and ~~to take~~ takes laser device temperature affecting steps in  
~~dependency of dependence on~~ said at least one electrical parameter  
~~{VCL, I}~~.

10. (Currently Amended) ~~Disc~~ The disc drive according to as  
claimed in claim 9, wherein the control unit ~~(5)~~ is designed to  
control ~~controls~~ the rotational speed of said disc drive motor ~~(2)~~  
in ~~dependency of dependence on~~ said at least one electrical  
5 parameter ~~{VCL, I}~~.

11. (Currently Amended) ~~Disc-The disc drive according to as~~  
~~claimed in~~ claim 9 or 10, ~~wherein said disc drive further~~  
~~comprising~~ comprises:

5 .....a light intensity sensor ~~(7)~~ coupled to an input ~~(8)~~ of  
the control unit ~~(5)~~, ~~disposed to receive~~ said light intensity  
sensor receiving at least a portion of the laser beam ~~(4)~~ generated  
by the semi-conductor laser ~~(20)~~, and ~~designed to generate~~ said  
light intensity sensor generating a measuring signal ~~(S)~~  
representative of the light intensity of said laser beam ~~(4)~~;

10 .....the control unit ~~(5)~~ being designed to control/controlling  
said semi-conductor laser ~~(20)~~ in response to said measuring signal  
such as to maintain a constant laser beam intensity.

12. (Currently Amended) ~~Disc-The disc drive according to as~~  
~~claimed in~~ claim 11, wherein said at least one electrical parameter  
~~(VCL, I)~~ comprises an output voltage ~~(VCL)~~ of the control unit ~~(5)~~.

13. (Currently Amended) ~~Disc-The disc drive according to as~~  
~~claimed in~~ claim 11, wherein said at least one electrical parameter  
comprises ~~the a~~ difference ~~(CV)~~ between ~~the an~~ actual value of an  
the output voltage ~~(VCL)~~ of the control unit ~~(5)~~ and a zero value  
5 ~~(V0)~~ of said output voltage ~~(VCL)~~ of the control unit ~~(5)~~ measured  
at a certain known temperature of the laser device.

14. (Currently Amended) ~~Disc~~~~The disc drive according to any of~~  
~~claims 9-13 as claimed in claim 2, wherein said disc drive~~  
~~comprises~~comprising a plurality of semi-conductor lasers ~~(20A,~~  
20B);

5 ~~wherein the control unit (5) has a plurality of outputs~~  
~~(6A, 6B) each providing a corresponding control signal (VCL, A,~~  
VCL, B) to a corresponding one of said semi-conductor lasers ~~(20A,~~  
20B);

~~and wherein the control unit (5) is designed to~~  
10 ~~moniter~~monitors a single signal indicative of a work point of only  
one of said semi-conductor lasers ~~(20A, 20B), and to take~~takes  
laser device temperature affecting steps in ~~dependency of~~dependence  
on said single threshold voltage indicating signal.

15. (Cancelled).